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REPLY: LETTER TO THE EDITOR

Sex differences in the incidence and severity of respiratory tract infections

We wish to thank Dr. Hemila for his interest in our article (September 2007).[1] We agree with the statement that the available evidence suggests that vitamin C supplementation can reduce the incidence of the common cold and pneumonia in males but not females. However, we should point out that the observed differences were noticed in the British population and therefore, as mentioned by Dr. Hemila, these results can be extrapolated only to populations with similar dietary habits. Also, the different behavioral patterns observed between males and females, such as those reported to our article, may be associated with differences in the incidence of respiratory tract infections.[1] In addition to these possibilities, a recently published review suggested that exposure to cold increases the risk of developing upper and lower respiratory tract infections as well as the risk of death;[2] the longer the duration of exposure to cold, the higher the risk of infection.[2] Inhaled cold air, cooling of the body surface, and cold stress induced by lowering the core body temperature have pathophysiological effects, such as vasoconstriction in the respiratory tract mucosa and suppression of immune responses, which are partially responsible for the increased susceptibility to infections. In addition, males may be more likely than females to be exposed to cold air due to occupational or recreational reasons. This may contribute to the observation that males, but not females, benefit from vitamin C supplementation.

References

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